

Title (en)
ION OPTICAL SYSTEM FOR A MASS SPECTROMETER

Title (de)
IONENOPTIK VORRICHTUNG FÜR MASSENSPEKTROMETRIE

Title (fr)
SYSTEME OPTIQUE IONIQUE POUR SPECTROMETRE DE MASSE

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Abstract (en)
[origin: WO0017909A1] A mass spectrometer having an ion reflecting instead of ion transmissive optics system. The spectrometer includes an ion source (16) for providing a beam of sample particles including ions along an axis (24). Its ion optics system (34-46) establishes a reflecting electrostatic field for reflecting ions along a path (30) from the particle beam and focussing them at an entrance aperture (26) of a mass analyser (25) and ion detector (27) for spectrometric analysis. The invention allows more efficient separation of ions from neutral particles, gives better signal to noise ratios and allows for a compact "optical" path and thus cheaper instrument to be manufactured. The reflecting electrostatic field can also be used to filter higher energy ions from lower energy ions. An ion optical system as such is also disclosed.

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